

DATE: March 18, 2009

SUBJECT: Documentation of Request for Verbal Authorization for a Removal Action at the Raritan Bay Slag Site, Old Bridge Township and Sayreville Borough, Middlesex County, New Jersey

FROM: Andrew L. Confortini, On-Scene Coordinator
Removal Action Branch

TO: Walter E. Mugdan, Director
Emergency and Remedial Response Division

THRU: Joseph Rotola, Chief
Removal Action Branch

Site ID No.: A205

The purpose of this memo is to document the request for verbal authorization to initiate a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) emergency removal action at the Raritan Bay Slag Site. The Comprehensive Environmental Response, Compensation and Liability Information System ID Number for this Site is NJN000206276.

On April 24, 2008, the United States Environmental Protection Agency (EPA), Removal Action Branch received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Laurence Harbor Seawall for CERCLA removal action consideration. On November 3, 2008, DEP forwarded an amended request to include the northern jetty (hereafter referred to as the western jetty) at the Cheesapeake Creek inlet in the overall scope. The site was renamed as Raritan Bay Slag (Site).

The Site is located in the Laurence Harbor section of Old Bridge and in Sayreville along the Raritan Bay. The overall site spans approximately 1.3 miles in length and consists of the waterfront area between Margaret's Creek and the area just beyond the western jetty at the Cheesapeake Creek Inlet (Figure 1). The portion of the Site that is situated in Laurence Harbor is part of what is now called Old Bridge Waterfront Park. The park is made up of walking paths, a playground area, several public beaches, and three jetties, not including the two jetties at the Cheesapeake Creek Inlet. The park waterfront is protected by a seawall, which is partially constructed with pieces of slag. The western jetty at the Cheesapeake Creek Inlet, and the adjoining waterfront area west of the jetty, contains slag as well. The slag was placed at the Site approximately 40 years ago. The seawall, jetties, beach area east of the Cheesapeake Creek Inlet, and the western jetty at the Cheesapeake Creek Inlet are popular fishing areas. The beaches east of the Cheesapeake Creek Inlet and west of the seawall appear to be the most popular for swimming.

Elevated levels of lead, antimony, arsenic, and copper were identified by the NJDEP in the soil

edge of the beach near the western end of the seawall. Old Bridge Township

placed a temporary "snow" fence in this area, posted "Keep-off" signs in the park along the split rail fence that borders the edge of the seawall, and notified the residents of Laurence Harbor.

EPA collected samples at the Site in September 2008 as part of an Integrated Assessment. The sampling included the collection of soil, sediment, water, biological, and waste samples along the seawall in Laurence Harbor, the western jetty at the Cheesequake Creek Inlet, the beaches situated near these two locations, and the developed portion of the park.

Analytical results generated by both EPA and NJDEP indicate that significantly elevated levels of lead and other heavy metals are present in the soils, sediment, and surface water in and around both the seawall in Laurence Harbor and the western jetty at the Cheesequake Creek Inlet.

Analytical results for surface soil samples collected near the seawall were as high as:

142,000 mg/kg for lead, 12,900 mg/kg for antimony, 3,350 mg/kg for arsenic, and 3,590 mg/kg for copper. Four surface soil samples collected on the western jetty at the Cheesequake Creek Inlet ranged in concentration from 54,800 mg/kg to 198,000 mg/kg. The maximum concentrations of antimony, arsenic, and copper detected on the western jetty at the Cheesequake Creek Inlet were 3,120 mg/kg, 2,470 mg/kg, and 4,630 mg/kg, respectively. Nine of 13 soil samples collected in and around the seawall and the western jetty at the Cheesequake Creek Inlet exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l). The TCLP results for the soil from the western jetty exceeded the limit by approximately 100 to 250 times.

Elevated levels of lead were also identified at several surface locations on the first beach between the western end of the seawall and the first jetty in Old Bridge Waterfront Park. The average lead concentration of the four highest detections at this location was 1,365 mg/l, with a maximum lead concentration of 1,630 ug/l. Three activity-based water samples collected from the beach area situated between the western end of the seawall and the first jetty had an average total lead concentration of 1,179 ug/l, with a maximum total lead concentration of 1,450 ug/l.

At the request of EPA, the New Jersey Department of Health and Senior Services, in cooperation with the Agency for Toxic Substances and Disease Registry, evaluated the analytical data generated from the samples collected at the Site. It was concluded that due to the elevated lead levels a Public Health Hazard exists at the seawall in Laurence Harbor, the beach between the western end of the seawall and the first jetty, and the western jetty at the Cheesequake Creek Inlet (including the waterfront area immediately west of the inlet).

Based on the available data, a CERCLA removal action is warranted at the Site. The following actions need to be taken:

Sayreville Portion:

- : installation of security fence to restrict access to the known areas of contamination;
- : affix warning signs to the fence and adjacent areas; and
- : maintain area as needed to minimize contact with hazardous substances

Old Bridge Portion:

- : installation of warning signs along affected beach areas, sea wall and fishing locations;
- : installation of security fencing along portions of the beachfront if necessary, to restrict access; and
- : maintain area as needed to minimize contact with hazardous substances

The total funding requested for mitigation contracting at the Site is \$175,000 of which \$150,000 is for ERRS and \$25,000 is for RST. At this time, \$50,000 is being committed to begin the actions necessary to notify the public and to restrict access to the areas where elevated levels of contamination has been identified.

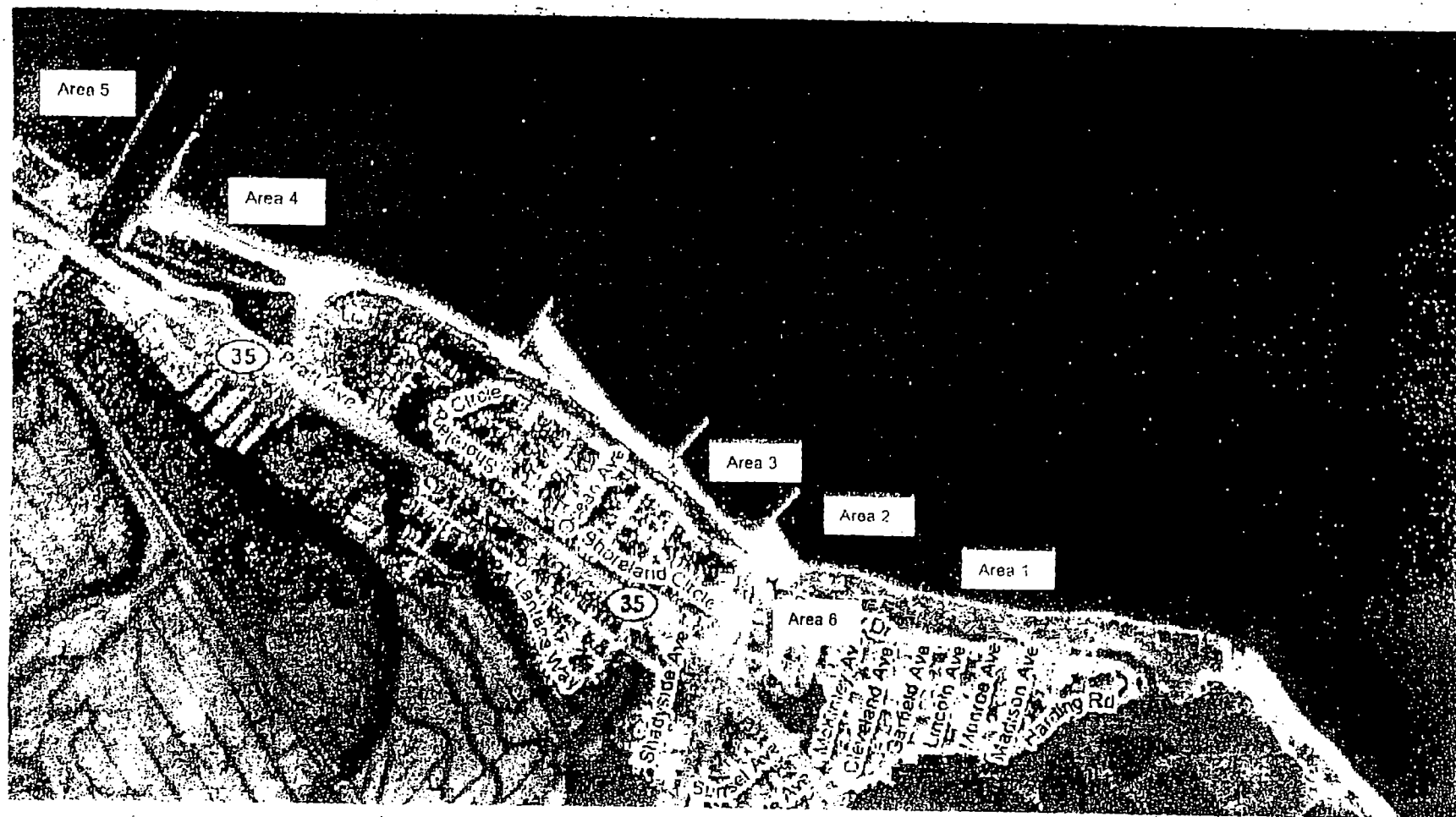


Figure 1: Location of the Raritan Bay Slag Site